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cc

Subject Ways to measure innovation in the economy

Attention: Department of Commerce,
Advisory Committee, Measuring Innovation in the 21st Century

How do you measure innovation?

As an innovation PhD student, innovation lecturer and tutor, this question appears to be a very good but difficult one to answer. The answer should be simple, cheap and useful, yet has to apply to many different situations and simplify a complex interactive environment.

It is possible to measure innovation at the input or output level. It is possible to measure tangible or intangible aspects of innovation. Some examples will clarify.

Tangible Input based innovation measure

- % sales invested in R&D
- total R&D expenditure
- % staff time spent on innovation
- % staff time not committed (ie slack – potential for innovation)

Tangible Output based innovation measure

- $ sales from new products (ie new products - not deliverable three years ago)

What these tangible measures do not measure is for instance failed innovation, that leads to learning, that leads to successful innovation.

RECOMMENDED: Intangible Output based innovation measure

Recent innovation literature stresses the creation of customer value from innovation (Kim and Mauborgne 1997, 1999, 2005). On this basis, innovation may be defined as the change in customer (and other stakeholder) value over time. Thus innovation is doing more with less, and innovation is change that makes our lives better (more valuable).

My PhD thesis on customer value suggests (http://www.thejoie.com.au/phd):

- Value is not measured in $.
- Value is subjective.
- Value degrades over time.
- Value is very wide, and can be controlled or uncontrolled eg good weather is valued, rain is valued, security is valued.

- Value includes expectation of the future – is my future secure, financial and happy.

Such a measure of innovation would need to be effected at product, firm, industry and national level. The measure would be actioned by random sample, using a scale indicating movement in value (1 – Much less value 3- same as last year 5 – much more value).

Question to measure relative change in innovation

Product level – ask product user – Does the product provide more value than last year?
Firm level – ask firm customer - Does the firm provide more value than last year?
Industry level – ask industry stakeholder - Does the industry provide more value than last year?
National level – ask a Citizen - Does the country provide more value than last year?

These measures are also derived from Sveiby's (1988) work on Measuring and Managing Intangible Assets, which stresses the need to measure relatively rather than absolute values. Thus, it is important to track the level of relative innovation over time rather than for instance the absolute spend on innovation.

The benefit of this approach is that innovation is treated wholistically, relatively and subjectively. This avoids the problems of trying to measure absolutes, and allows comparison by firm, product, industry and even to compare nation against nation.

For your consideration.
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Unlocking 3G consumer value - the Australian opportunity

Acad Title 07 - Understanding 3G consumer value: a grounded theory approach to technology diffusion
Acad Title 05 - Diffusion acceleration project - adoption of radical technology (Aust.)
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There is a thing, formless yet complete.
Before heaven and earth it existed.
Without sound, without substance, it stands alone and unchanging.

It is all-pervading and unfailing.
One may think of it as the mother of all beneath Heaven.
We do not know its name, but we call it Tao.
Lao Tzu

http://members.aol.com/heraklit1/laotzu.htm
